

suggest that the A<sub>2A</sub> receptor is the major subtype accounting for adenosine-induced mast cell tPA activity. Finally, the supernatant from HMC-1 cells treated with adenosine (24h) significantly increased fibrin clot lysis, while ZM241385, an A<sub>2A</sub> receptor antagonist, abolished this effect. This study provides the first data to demonstrate the potentiating effect of adenosine on mast cell tPA activity and fibrin clot lysis.

### P183 GLOBAL BURDEN OF ALLERGIC BRONCHOPULMONARY ASPERGILLOSIS (ABPA) COMPLICATING ASTHMA

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**Background** ABPA may complicate asthma in some patients. The potential global ABPA burden remains unknown, limiting its prioritisation for both population and clinical responses.

**Methods** We estimated the number of adults with asthma, using the GINA statistics as the baseline dataset and this derived equation: Adult Prevalence (AP) = total prevalence × adult population / (0.88 paediatric population + adult population). This method provided results which were compatible with more direct sources on Scotland (Ananadan, 2010), North Africa (Nafti, 2009) and the USA (CDC stats, 2008). Two period prevalence rates available on ABPA in asthmatic patients are 0.72% (Ireland; Donnelly, 1991) and 3.5% (New Zealand; Eaton, 2000) (eliminating the non-classical cases from both papers) so we used a mean of 2.1% (range 0.72–3.5%). We estimated case burdens by WHO region and for the UK and USA.

**Results** By WHO region, the ABPA burden estimates are: Europe, 466 891 (range 160 077–778 152); Americas, 704 926 (range 241 689–1 174 877); Eastern Mediterranean, 187 963 (range 64 444–313 272); Africa, 294 058 (range 100 820–490 097); Western Pacific, 881 860 (range 302 352–1 469 766); South East Asia, 614 353 (range 210 635–1 023 922); and global, 3 150 052 (range 1 080 018–5 250 086) cases. The UK adult asthma and ABPA burdens are estimated to be 7.1M and 149 901 (range 51 395–249 835) cases, respectively, with those for the US being 24.5M and 515 787 (range 176 841–859 645) cases.

**Conclusions** ABPA is probably more common globally than has been appreciated. A lack of sufficient population research using current fungal diagnostic approaches and clinical research on antifungal therapy effects on the course of ABPA among different populations, limits our estimates' utility.

### P184 CAN WE PREDICT ASTHMA EXACERBATIONS IN WORKING-AGE ADULTS?

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**Introduction** Little information exists on the prevalence and risk factors of asthma exacerbations in the general population. We used GP records to determine whether we can predict exacerbations in adults from their medical history.

**Methods** Using the Health Improvement Network database, we identified all patients aged 16–40 years with “current asthma” (≥1 asthma prescription between 01/07/98 and 01/07/00). Three types of asthma exacerbations were studied: “hospital” defined as events resulting in attendance at A&E or admission; “GP” defined as events occurring during out-of-hours consultations; and “prednisolone” defined as non-repeat prescriptions of oral prednisolone for asthma.

**Results** 73 462 patients were identified. They were on average 28 years old and 56% were female. 36,762 (50%) were registered for at least 5 years pre-qualification and 1 year post. Of these, 0.3% had at least one hospital exacerbation in the first year post, 2.4% had at least one GP exacerbation and 8.3% had at least one prednisolone exacerbation. Women and those prescribed a reliever and preventor at qualification were more likely to have exacerbations (see Abstract P184 Table 1). The prevalence of exacerbations was associated with an increasing number and increasingly recent history of exacerbations pre-qualification.

### Abstract P184 Table 1 Prevalences of at least one exacerbation in the first year post-qualification

	Hospital	GP	Prednisolone
Sex			
Male	0.2%	2.1%	7.1%
Female	0.4%	2.6%	9.2%
	p=0.001	p=0.001	p<0.001
Prescriptions at qualification			
Reliever and preventor	0.5%	3.9%	14.3%
Other	0.3%	1.7%	5.8%
	p=0.001	p<0.001	p<0.001
Number of exacerbations* in the 5 years pre-qualification			
0			
1	0.3%	1.7%	5.9%
2	3.3%	9.0%	14.9%
3+	17.5%	12.5%	25.0%
	18.8%	30.8%	47.8%
	p<0.001 (trend)	p<0.001 (trend)	p<0.001 (trend)
Time since the last pre-qualification exacerbation*			
<1 year	11.8%	20.5%	39.5%
1–2 years	8.8%	11.0%	22.3%
2–3 years	6.5%	9.2%	16.2%
3+ years	1.9%	5.8%	13.6%
	p<0.001 (trend)	p<0.001 (trend)	p<0.001 (trend)

\*Of the same type.

**Discussion** These results show that while few have hospital exacerbations, GP and prednisolone exacerbations are comparatively common. For all types, a previous and recent history of exacerbations increases the risk of future exacerbations.

## Challenges in smoking cessation

### P185 PUBLIC ATTITUDES TO SMOKING IN CARS

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**Background** Passive smoking is increasingly associated with adverse health effects. The new UK Government is considering its tobacco control policy.

**Aim** To record public attitudes on potential legislation regarding smoking in cars.

**Methods** We commissioned a survey of the YouGov® Plc British panel of 185 000+ people (aged 18+). An email was sent to panelists, selected at random using a sophisticated sampling matrix, to be representative of each country. Three surveys were conducted between 25 and 30 March 2009. We obtained answers from n=10 895 adults in England, n=1023 adults in Wales, and n=1157 adults in Scotland. The results for all three countries were merged at analysis stage and re-weighted to be representative of the overall GB population. We had data from 13 075 adults, 52% female, mean age